

**ECOSYSTEM RESTORATION REPORT
AND
INTEGRATED ENVIRONMENTAL ASSESSMENT**

FOR

**LEWISVILLE LAKE
WILDLIFE HABITAT RESTORATION
DENTON COUNTY, TEXAS**

MARCH 1998

Prepared by

**U.S. ARMY CORPS OF ENGINEERS
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**in Cooperation with the
CITY OF DENTON, TEXAS**

SYLLABUS

This Ecosystem Restoration Report (ERR) presents the results of a study conducted under the authority of Section 1135 of the Water Resources Development Act of 1986, as amended (33 USC 2201). The purpose of this study was to identify the environmental degradation caused by the construction and operation of Lewisville Lake and subsequent development activities. It was also to evaluate measures to improve the functional stability and integrity of important ecological resources located at the lake, such as wetlands and riparian and bottomland hardwood forests, and recommend an environmental restoration project, if one can be identified which meets the applicable project criteria. The study was conducted by the U.S. Army Corps of Engineers, Fort Worth District with the City of Denton, Texas.

Lewisville Lake is located approximately 10 miles southeast of Denton, Texas, and 45 miles north of Dallas, Texas, in Denton County. Prior to the impoundment for Lewisville Lake, the Elm Fork of the Trinity River had substantially more area of wetlands, bottomland and upland forests. In 1988, the operation of the lake was modified to raised the elevation of the conservation pool, resulting in further environmental degradation. The study area, 2,756 acres of old fields, remnant riparian and bottomland hardwoods, lacustrine wetlands and open water located at the northern end of the lake, was reviewed and found to be suitable for the purposes of habitat restoration. The purpose of this proposed project is to restore wetland and bottomland communities to benefit wildlife utilizing the project lands, including migratory waterfowl, shorebirds, perching and migratory songbirds and predators, such as Cooper's hawk (*Accipiter cooperii*), which would benefit from increased size and quality of woodlands in the upper end of Lewisville Lake. The project would also benefit resident species of wildlife such as squirrels, rabbits, various reptiles and amphibians.

The recommended plan as described in this ERR consists of the reforestation of approximately 609 acres within selected openings to provide linkage among existing riparian and bottomland hardwood habitat and the construction of a wetland complex comprising a total of 98 acres. The total project cost is estimated at \$488,370.

For the recommended plan, lands will be made available by lease to the city of Denton as the non-federal sponsor. The city of Denton will also be responsible for all operation, maintenance, replacement, and repair costs. Both Texas Parks and Wildlife Department and U.S. Fish and Wildlife Service are supportive of this Section 1135 project.

An Environmental Assessment (EA) was integrated into the ERR to assess the possible impacts that could occur if this Section 1135 were implemented. Items marked with an asterisk (*) indicate information required to fulfill National Environmental Policy Act requirements. A Finding of No Significant Impact if appropriate will be issued after reviewing comments on the EA.

For more information, please contact U.S. Army Corps of Engineers, Fort Worth District, CESWF-EV-EE, ATTN: Marcia Hackett (817) 978-2095 or CESWF-PM-C, ATTN: Eli Kangas, (817) 978-3753, 819 Taylor Street, Fort Worth, Texas, 76102-0300.

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